

REMARKS

Claims 1-7 are all the claims pending in the application.

The prior art rejections are respectfully traversed.

Horne is directed to a concept shown in Fig. 7 where a thermal heat source 80 radiates heat through a micromesh filter 50 to obtain a desired transmitted energy spectrum 86. One of the applications of this concept is photovoltaic cells (see, e.g., lines 18-23 of column 1). In Fig. 36 cited by the examiner, incident light would pass through a filter array 172, then through a concentrating prism, and then strike the photovoltaic cell 174. If it is assumed for purposes of this discussion that it would have been obvious to combine the teachings of Horne and the admitted prior art of the present application, one might mount filter and concentrating prism such as 172 and 170 of Horne on top of the photovoltaic cell 101 in Fig. 1 of the present application. The purpose of the layer 102 in figure 1 of the present application is to pass wanted radiation while reflecting unwanted radiation, and one would assume the elements 172 and 170 would replace layer 102 of the present application. This would not result in the invention of the present application.

The examiner in the present Office action proposes that the filter 172 of Horne would replace the coating on the reflecting concentrator 106 of the present application, but it is submitted that this is only based on hindsight. The examiner argues that Horne teaches placing the filter 172 over the concentrator 170, and that this would have taught one to place a filter over concentrator 106 of the present application. But the filter arrangement of Horne is designed for light that passes *through* the concentrator to the PV (see Fig.38), and does not contemplate that

the light passes through the filter, reflects from the reflecting concentrator and then passes back through the filter toward the PV cell.

There is no suggestion in the admitted prior art of the present application that a filter layer should be placed in a position where it filters radiation passing through it in both directions, once when passing to the concentrator and again when coming from the concentrator. The only filter operates only on radiation passing through it in one direction. There is no suggestion in Horne that a filter layer should be placed in a position where it filters radiation passing through it in both directions, once when passing to the concentrator and again when coming from the concentrator. The only filter operates only on radiation passing through it in one direction. Since neither reference teaches a filter operating on radiation passing through it in both directions, there is no obvious combination of the two references which would result in this feature, and for this reason it is submitted that claim 1 patentably distinguishes over the prior art.

For the above reasons, it is submitted that claim 1 and all it dependent claims patentably distinguish over the prior art. In addition, dependent claims 2 and 4-6 further distinguish over the prior art. The filter layer of Horne reflects unwanted radiation, but does not absorb as is required in claims 2 and 3. And the thickness change and surface orientation recited in claims 4-6 is specific to the manner in which the filter of the present invention operates, which is totally different from Horne. Contrary to the examiner's assertion that there is no disclosure as to the impact of the claimed thickness changes, note Fig. 2 which illustrates how the inclination of the surface 116 relative to the surface of 106 will impact the reflection angles and thereby impact what is or is not reflected or the angles of refraction of whatever is not reflected, both the first time through the filter and the second time through the filter. And the specification at page 4

describes in detail the role of inclining the surface 116. Horne teaches reflection, but not controlling the inclination angle of the surface of the filter as is recited in claims 4-6.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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